Fall 2015 Levee Maintenance Deficiency Summary Report Overall LMA & Unit Ratings, including USACE Erosion Survey

Sacramento River Basin

ST0002 Sutter Maintenance Yard East Levee	Overall LMA Rating	Total LMA Miles						
Sutter Bypass	Α	21.68						
Rated Item		Maintena	nce Deficiancy		Enforc	ement	Design 8 Obsole	
Rateu item	M Miles	U Miles	M + 4U Miles	Threshold %	M Miles	U Miles	M Miles	U Miles
Earthen Levee								
Encroachments						0.01		
Slope Stability	0.04		0.04	0.19%				
Supplemental								
2015 USACE Erosion Survey, DRAFT	0.03		0.03	0.14%				
DWR UCIP Field Study					0.16			
LMA Totals:	0.07	0.00	0.07	0.32%	0.16	0.01	0.00	0.00

LMA District Cover Sheet

Fall 2015 Levee Inspection Results

Sutter Maintenance Yard East Levee Sutter Bypass

	Spring (March - May)	Summer ** (June - August)	Fall (September - November)	Winter ** (December - February)
* Overall LMA Rating (Fall Only)			A	
	** Non-receipt of Su	mmer or Winter Inspe	ection Reports may effec	ct overall annual rating
SPRING INSPECTIONS: Overall maintenance deficiencies are rated FALL INSPECTIONS: The overall maintenan within the attached ur	using the same criter nce rating shown abo	ria in the spring and ir ve is based on operat	the fall.	eficiencies identified
omments				

Unit Cover Sheet

Fall 2015 Levee Inspection Results

Sutter Maintenance Yard East Levee Sutter Bypass

Waterway	Bank	Unit Miles
Unit No. 01 Sutter Bypass Levee	Left	21.68

	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)			Α	
Date of Inspection	04/02/2015 - 04/02/2015		10/14/2015 - 10/14/2015	
DWR Inspector	Bob Duffey		Bob Duffey	
Accompanied By	Steve Beckley Sutter Maintenance Yard		Steve Beckley Sutter Maintenance Yard	

Summer & Winter Inspections

The Local Maintaining Agency (LMA) is responsible for summer and winter inspections. The LMA is required to submit a report regarding summer and winter inspections to the California Department of Water Resources (DWR).

DWR must be informed on the:

- a) completion of the inspection
- b) any changes other than the results of normal maintenance
- c) corrections to deficiencies noted in this report

If additional items are noted, further documentation of those items must also be submitted.

The LMA should submit this information to DWR using the LMA web application tool available at:

http://cdec.water.ca.gov/lma.html

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.

Levee Inspection Report By Mile - Fall 2015

Sutter Maintenance Yard East Levee Sutter Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sutter Bypass Levee	Left	21.68	10/14/2015 10/14/2015	Bob Duffey

LM Start		Rating **	Α	Issue No.		4		
LM End		Issue Type +	Ma	Location *		N/A		
Category	GPS La	atitud	le/Longitude					
Category			Start		End			
Item		s & Maintena	nce		0		0	
item	Manuals				0		0	
DWR ID	DWR_ST00	002_01_s _ 201	3_4					
		Action/	Comme	nts				
Inspector	Comments	: The LMA ha	s the O	&M manuals	S.			

No Photos

LM Start		Rating **	Α	Issue No.		5	
LM End		Issue Type +	Ma	Location *		N/A	
Category	Earthen L	evee	GPS La	atitud	e/Longitude		
Calegory				Start		End	
Item	Emergend			0		0	
пеш	Equipmen	nt			0		0
DWR ID	DWR_ST0	002_01_s _ 201	3_5				
	Action/Comments						
Inspector (Comments	: The LMA ha	s flood f	ight supplie	s an	d equipment	

No Photos

LM Start		Rating **	Α	Issue No.		6	
LM End		Issue Type +	Ma	Location *		N/A	
Category	Earthen L	GPS La	atitud	le/Longitude			
Category				Start		End	
Item	Flood Pre	paredness &		0		0	
item					0		0
DWR ID	DWR_ST0	002_01_s _ 201	3_6				
		Action/	Comme	nts			
Inspector C	Comments	: The LMA ha	s compl	eted flood f	light	training.	

No Photos

* Location

LS: Land Side N/A: Not Applicable

WS: Water Side

CR: Crown

A : Acceptable
M : Minimally Acceptable
U : Unacceptable

N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type

Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence
En : Enforcement

Levee Inspection Report By Mile - Fall 2015

Sutter Maintenance Yard East Levee Sutter Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sutter Bypass Levee	Left	21.68	10/14/2015 10/14/2015	Bob Duffey

LM Start	0.32	Rating **	М	Issue No.		31	
LM End	0.32	Issue Type +	En	Location *		N/A	
Category	Suppleme	ental		GPS Lat	tud	e/Longitude	
Calegory				Start		End	
Item	DWR UCI	P Field Study		39.14746	3°	39.147463	٥
пеш				-121.82871	3°	-121.828716	٥
DWR ID							

Action/Comments

Inspector Comments: FS_ID:45046

DS_ID:16859 EP_NO: 4795 FS_HLM: 0.33

Repair Type: Non-Urgent Crossing Status: Indicator Found

UCIP Comments: 5/7/2015 Could not locate a marker for this crossing. Unable to locate any indicator of crossing. More research may be necessary5/22/2013 Same as last inspection. Unable to locate.10/30/2103 Same as last inspection.5/13/2014 Same as last inspection.

FIELD_STRUCT_DESC: 3-inch gas line along the landward toe.

(extension of App. No. 4795 - PG&E).

FS Date: 05/11/2015

LM Start	1.11	Rating **	М	Issue No.		32				
LM End	1.11	Issue Type +	En	Location *		Location *		Location *		N/A
Category	Suppleme	Supplemental			GPS Latitude/Longitude					
Calegory			Start		End					
Item	DWR UCI	P Field Study		39.14086	86°	39.140868 °				
Item				-121.81664	44 °	-121.816644 °				
DWR ID										

Action/Comments

Inspector Comments: FS_ID:45050

DS_ID:16862 EP_NO: 10932 FS_HLM: 1.134 Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 5/7/2015 24in. cmp riser and siphon breaker were not found on the WS shoulder. Pier has no walkway to access pump on pier. This is not necessarily an issue. 5/22/2013 24in. cmp riser on WS shoulder is full of garbage and dirt and should be cleaned out to inspect siphon breaker. 10/30/2013 24in. cmp riser was pulled out of levee and there is no sign of a siphon breaker on WS

shoulder.5/13/2014 Same as last inspection.11/12/2014 Same as

last inspection.

FIELD_STRUCT_DESC: 16-inch steel pipe through the levee, 6.3 feet below the crown. Vertical pump mounted on a steel structure on the bank. Siphon breaker in a 24-inch corrugated metal pipe riser on the waterward slope. Concrete distribution box on the landward side. JP on WS shoulder. Original Equipment in O+M. Replaced under (App. 10932-Nall) Hand drawings available in permit.

FS Date: 05/11/2015

No Photos



7'X7' concrete distribution box on LS toe.

Levee Inspection Report By Mile - Fall 2015

Sutter Maintenance Yard East Levee Sutter Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sutter Bypass Levee	Left	21.68	10/14/2015 10/14/2015	Bob Duffey

LM Start	1.11	Rating **	М	Issue No.		32 (cont)		
LM End	1.11	Issue Type +	En	Location *		N/A		
Supplemental				GPS Latitude/Longitude				
Calegory				Start		End		
Item	DWR UCI	P Field Study		39.14086	8°	39.140868 °		
пеш				-121.81664	4 °	-121.816644 °		
DWR ID								

Action/Comments

Inspector Comments: FS_ID:45050

DS_ID:16862 EP_NO: 10932 FS_HLM: 1.134

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 5/7/2015 24in. cmp riser and siphon breaker were not found on the WS shoulder.Pier has no walkway to access pump on pier. This is not necessarily an issue.5/22/2013 24in. cmp riser on WS shoulder is full of garbage and dirt and should be cleaned out to inspect siphon breaker.10/30/2013 24in. cmp riser was pulled out of levee and there is no sign of a siphon breaker on WS shoulder.5/13/2014 Same as last inspection.11/12/2014 Same as last inspection.

FIELD_STRUCT_DESC: 16-inch steel pipe through the levee, 6.3 feet below the crown. Vertical pump mounted on a steel structure on the bank. Siphon breaker in a 24-inch corrugated metal pipe riser on the waterward slope. Concrete distribution box on the landward side. JP on WS shoulder. Original Equipment in O+M. Replaced under (App. 10932-Nall) Hand drawings available in permit.

FS Date: 05/11/2015



24-inch CMP riser on WS slope.

Levee Inspection Report By Mile - Fall 2015

Sutter Maintenance Yard East Levee Sutter Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sutter Bypass Levee	Left	21.68	10/14/2015 10/14/2015	Bob Duffey

LM Start	1.11	Rating **	М	Issue No.		32 (cont)		
LM End	1.11	Issue Type +	En	Location *		N/A		
Supplemental				GPS Latitude/Longitude				
Calegory	Category			Start		End		
Item	DWR UC	IP Field Study		39.14086	8 °	39.140868 °		
пеш				-121.81664	4 °	-121.816644 °		
DWR ID								

Action/Comments

Inspector Comments: FS_ID:45050

DS_ID:16862 EP_NO: 10932 FS_HLM: 1.134

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 5/7/2015 24in. cmp riser and siphon breaker were not found on the WS shoulder. Pier has no walkway to access pump on pier. This is not necessarily an issue.5/22/2013 24in. cmp riser on WS shoulder is full of garbage and dirt and should be cleaned out to inspect siphon breaker.10/30/2013 24in. cmp riser was pulled out of levee and there is no sign of a siphon breaker on WS shoulder.5/13/2014 Same as last inspection.11/12/2014 Same as last inspection.

FIELD_STRUCT_DESC: 16-inch steel pipe through the levee, 6.3 feet below the crown. Vertical pump mounted on a steel structure on the bank. Siphon breaker in a 24-inch corrugated metal pipe riser on the waterward slope. Concrete distribution box on the landward side. JP on WS shoulder. Original Equipment in O+M. Replaced under (App. 10932-Nall) Hand drawings available in permit. FS Date: 05/11/2015

Photo 3 of 3: UCIP_FA_2015_4866.jpg



Pump on metal pier on WS slope.

LM Start	3.54	Rating **	A/W	Issue No.		30
LM End	3.54	Issue Type +	Ma	Location *	LS	
Category Earthen Levee				GPS La	atitud	e/Longitude
Calegory	Category			Start		End
Item	Animal Co	ontrol		39.1204	17°	39.120417°
iteiii				-121.7798	63 °	-121.779863 °
DWR ID DWR_ST0002_01_f _ 2015_30						·
		Action/	Comme	nts		

No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

No Photos

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Levee Inspection Report By Mile - Fall 2015

Sutter Maintenance Yard East Levee Sutter Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sutter Bypass Levee	Left	21.68	10/14/2015 10/14/2015	Bob Duffey

LM Start	4.46	Rating **	С	Issue No.		28				
Livi Otart							_			
LM End	4.46	Issue Type +	Ma	Location *		WS				
Category	Category Earthen Levee					GPS Latitude/Longitude				
Category				Start		End				
Item	Slope Sta	bility		39.1120	42 °	39.112042	٥			
Item	tem			-121.7666	37 °	-121.766687	٥			
DWR ID	DWR_ST0	002_01_s _ 201	5_28							
		Action/	Comme	nts						

Repair the levee slope damaged by vehicle traffic and prevent access where possible.

Inspector Comments: Sutter Yard repaired the vehicle erosion along the the waterside slope.

LM Start	4.78	Rating **	С	Issue No.	27		
LM End	4.78	Issue Type +	Ma	Location *	WS		
Category Earthen Levee			GPS Latitude/Longitude				
Category				Start		End	
Item	Erosion /	Bank Caving		39.10842	27 °	39.108427 °	
iteiii				-121.7629°	10°	-121.762910 °	
DWR ID	DWR ID DWR_ST0002_01_s _ 2015_27						
	Action/Comments						

Schedule repair of erosion site prior to the next inspection. Inspector Comments: Sutter Yard repaired the beaver hole at the waterside toe.

No Photos

No Photos

LM Start	4.95	Rating **	С	Issue No.		26	
LM End	4.95	Issue Type +	Ма	Location *		WS	
Category Earthen Levee			GPS Latitude/Longitude				
Category				Start		End	
Item	Erosion /	Bank Caving		39.106428 °		39.106428	0
пеш				-121.7611	50°	-121.761150	0
DWR ID	DWR_ST0	002_01_s _ 201	5_26				
		Action/	Comme	nts			

Schedule repair of erosion site prior to the next inspection.

Inspector Comments: Sutter Yard repaired the beaver hole at the waterside toe.

No Photos

* Location LS : Land Side N/A : Not Applicable A : Acceptable M : Minimally Acceptable N : Not Inspected/Rated WS: Water Side U : Unacceptable A/W : Acceptable but Monitor & Maintain CR : Crown

+ Issue Type

Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence En : Enforcement

Levee Inspection Report By Mile - Fall 2015

Sutter Maintenance Yard East Levee Sutter Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sutter Bypass Levee	Left	21.68	10/14/2015 10/14/2015	Bob Duffey

LM Start	5.20 Rating ** M		Issue No.		25		
LM End	5.20	Issue Type +	Ma	Location *	WS		
Category	evee	GPS Latitude/Longitude					
Calegory	egory					End	
Item	Slope Sta	bility		39.1033	13 °	39.103313 °	
item				-121.7588	13 °	-121.758813 °	
DWR ID	DWR ID DWR_ST0002_01_s _ 2015_25						
	Action/Comments						

Repair the levee slope damaged by vehicle traffic and prevent access where possible.

Inspector Comments: Repair the vehicle erosion along the waterside slope.



View of the vehicle erosion along the waterside slope.

LM Start	6.09	Rating **	М	Issue No.		33		
LM End	6.09	Issue Type +	En	Location *		WS		
Category				GPS Latitude/Longitude				
Calegory				Start		End		
Item	DWR UCI	P Field Study		39.0912	60°	39.091260		
пеш				-121.7528	74 °	-121.752874		
DWR ID						·		

Action/Comments

Inspector Comments: FS_ID:45068

DS_ID:19983 EP NO: N/A FS_HLM: 6.188

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 5/7/2015 Crossing is in good condition. No noticeable issues to report. No permit or purpose identified for this crossing.5/22/2013 Same as last inspection.10/30/2013 Same as last inspection.5/13/2014 Same as last inspection.11/12/2014 Same as last inspection.

FIELD_STRUCT_DESC: 2.5-inch steel pipe bored under the levee at unkn own depth. Pipe has locked cap on both LS and WS toe. Steel stairs on WS slope and steel I-beam stream crossing on LS toe mark location of pipe.

FS Date: 05/11/2015

Photo 1 of 3: UCIP_FA_2015_5013.jpg



Capped pipe on LS toe on east side of ditch.

Levee Inspection Report By Mile - Fall 2015

Sutter Maintenance Yard East Levee Sutter Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sutter Bypass Levee	Left	21.68	10/14/2015 10/14/2015	Bob Duffey

LM Start	6.09	Rating **	М	Issue No.		33 (cont)		
LM End	6.09	Issue Type +	En	Location *		WS		
Category				GPS Latitude/Longitude				
Calegory				Start		End		
Item	DWR UC	P Field Study		39.09126	60°	39.091260 °		
item				-121.75287	74 °	-121.752874 °		
DWR ID								

Action/Comments

Inspector Comments: FS_ID:45068

DS_ID:19983 EP_NO: N/A FS_HLM: 6.188

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 5/7/2015 Crossing is in good condition. No noticeable issues to report.No permit or purpose identified for this crossing.5/22/2013 Same as last inspection.10/30/2013 Same as last inspection.5/13/2014 Same as last inspection.11/12/2014

Same as last inspection.

FIELD_STRUCT_DESC: 2.5-inch steel pipe bored under the levee at unkn own depth. Pipe has locked cap on both LS and WS toe. Steel stairs on WS slope and steel I-beam stream crossing on LS toe mark location of pipe.

FS Date: 05/11/2015

LM Start	6.09	Rating **	М	Issue No.	33 (cont)
LM End	6.09	Issue Type +	En	Location *	WS



Pipe between two trees on WS toe.

Photo 3 of 3: UCIP_FA_2015_5015.jpg



Capped pipe and metal stairs on WS toe.

Levee Inspection Report By Mile - Fall 2015

Sutter Maintenance Yard East Levee Sutter Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sutter Bypass Levee	Left	21.68	10/14/2015 10/14/2015	Bob Duffey

1110	7.47	Rating **	N.4	Issue No.		24			
LM Start	7.47	Raung	М	issue ivo.		34			
LM End	7.47	Issue Type +	En	Location *		WS			
Category	ental	GPS Latitude/Longitud							
Calegory				Start		End			
Item	DWR UCIP Field Study			39.072292 °		39.072292 °			
пеш				-121.7449	07 °	-121.744907 °			
DWR ID									
	Action/Comments								
Inspector (nspector Comments: FS ID:45072								

DS_ID:19985 EP_NO: N/A FS_HLM: 7.586

Repair Type: Non-Urgent Crossing Status: Found

LM Start	7.47	Rating **	М	Issue No.	34 (cont)
LM End	7.47	Issue Type +	En	Location *	WS



Gasline marker on LS toe east of ditch.

Photo 2 of 2: UCIP_FA_2015_5045.jpg



Gasline marker on WS shoulder.

Levee Inspection Report By Mile - Fall 2015

Sutter Maintenance Yard East Levee Sutter Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sutter Bypass Levee	Left	21.68	10/14/2015 10/14/2015	Bob Duffey

LM Start	8.14	Rating **	М	Issue No.		35			
LM End	8.14	Issue Type +	En	Location *	WS				
Category	ental	GPS Latitude/Longitude							
Category				Start		End			
Item	DWR UCI	WR UCIP Field Study			76 °	39.062976 °			
пеш				-121.741027 °		-121.741027 °			
DWR ID									
	Action/Comments								
Inspector (nspector Comments: FS_ID:45073								

DS_ID:19984 EP_NO: N/A FS_HLM: 8.273

Repair Type: Non-Urgent Crossing Status: Found

LM Start	8.14	Rating **	М	Issue No.	35 (cont)
LM End	8.14	Issue Type +	En	Location *	WS



Pipe at steel i-beam crossing in ditch at LS toe.

Photo 2 of 2: UCIP_FA_2015_5047.jpg



Pipe at steel i-beam crossing in ditch at LS toe.

Levee Inspection Report By Mile - Fall 2015

Sutter Maintenance Yard East Levee Sutter Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sutter Bypass Levee	Left	21.68	10/14/2015 10/14/2015	Bob Duffey

LM Start	10.27	Rating **	М	Issue No.	36			
LM End	10.27	Issue Type +	En	Location *		WS		
Category				GPS Latitude/Longitude				
Calegory				Start		End		
Item	DWR UC	IP Field Study		39.03352	22 °	39.033522 °		
item				-121.72892	27 °	-121.728927 °		
DWR ID								
	Action/Comments							

Action/Comment

Inspector Comments: FS_ID:45075

DS_ID:16884 EP_NO: 14455 FS_HLM: 10.44

Repair Type: Non-Urgent Crossing Status: Indicator Found





Gasline markers on WS shoulder.

Photo 2 of 2 : UCIP_FA_2015_5049.jpg



Gasline markers on LS toe .

Levee Inspection Report By Mile - Fall 2015

Sutter Maintenance Yard East Levee Sutter Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sutter Bypass Levee	Left	21.68	10/14/2015 10/14/2015	Bob Duffey

LM Start	10.27	Rating **	М	Issue No.		37		
LM End	10.27	Issue Type + En		Location *		WS		
Category	Supplemental				GPS Latitude/Longitude			
Calegory					Start			
Item	DWR UCI	IP Field Study		39.0335	19°	39.033519	0	
item				-121.72892	26 °	-121.728926	0	
DWR ID								

Action/Comments
Inspector Comments: FS_ID:45076

DS_ID:16899 EP_NO: 14455 FS_HLM: 10.44

Repair Type: Non-Urgent Crossing Status: Indicator Found

LM Start	10.27	Rating **	М	Issue No.	37 (cont)
LM End	10.27	Issue Type +	En	Location *	WS



Gasline markers on WS shoulder.

Photo 2 of 2 : UCIP_FA_2015_5051.jpg

Gasline markers on LS toe.

Levee Inspection Report By Mile - Fall 2015

Sutter Maintenance Yard East Levee Sutter Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sutter Bypass Levee	Left	21.68	10/14/2015 10/14/2015	Bob Duffey

LM Start	10.27	Rating **	М	Issue No.	38		
LM End	10.27	Issue Type +	En	Location *	WS		
Category	ental	GPS Latitude/Longitude					
Calegory				Start		End	
Item	DWR UC	P Field Study		39.03351	7 °	39.033517 °	
пеш				-121.72892	25 °	-121.728925 °	
DWR ID							
	Action/Comments						

Inspector Comments: FS_ID:45077

DS_ID:16900 EP_NO: 14455 FS_HLM: 10.44

Repair Type: Non-Urgent Crossing Status: Indicator Found





Gasline markers on WS shoulder.



Gasline markers on LS toe.

Levee Inspection Report By Mile - Fall 2015

Sutter Maintenance Yard East Levee Sutter Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sutter Bypass Levee	Left	21.68	10/14/2015 10/14/2015	Bob Duffey

LM Start	10.83	Rating **	М	Issue No.	39		
LM End	10.83	Issue Type +	En	Location *		WS	
Category	Suppleme	ental	GPS Latitude/Longitude				
Calegory				Start		End	
Item	DWR UC	IP Field Study		39.0256	93 °	39.025693°	
item				-121.7268	95 °	-121.726895 °	
DWR ID							
Action/Comments							

Inspector Comments: FS_ID:45084

DS_ID:16871 EP_NO: N/A FS_HLM: 10.999 Repair Type: Non-Urgent Crossing Status: Found

LM Start	10.83	Rating **	М	Issue No.	39 (cont)
LM End	10.83	Issue Type +	En	Location *	WS



Pumphouse/intake structure on LS toe.



Flap gates on WS toe.

Levee Inspection Report By Mile - Fall 2015

Sutter Maintenance Yard East Levee Sutter Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sutter Bypass Levee	Left	21.68	10/14/2015 10/14/2015	Bob Duffey

LM Start	10.83	Rating **	М	Issue No.		39 (cont)
LM End	10.83	Issue Type +	En	Location *		WS
Category	Supplemental			GPS Latitude/Longitude		
Calegory			Start		End	
Item	DWR UCI	P Field Study		39.02569	3°	39.025693
пеш				-121.72689	5 °	-121.726895
DWR ID						

Action/Comments

Inspector Comments: FS_ID:45084

DS_ID:16871 EP_NO: N/A FS_HLM: 10.999 Repair Type: Non-Urgent Crossing Status: Found



Slide gates on WS shoulder

LM Start	10.83	Rating **	М	Issue No.		40
LM End	10.83	Issue Type +	En	Location *		WS
Category	Suppleme	GPS Latitude/Longitude				
Calegory				Start		End
Item	DWR UC	IP Field Study		39.0256	83 °	39.025683
item				-121.7268	86 °	-121.726886
DWR ID						

Action/Comments

Inspector Comments: FS_ID:45085

DS_ID:16906 EP_NO: N/A FS_HLM: 10.999 Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 5/7/2015 Abandoned crossing but no noticeable issues to report.Determine type of abandonment.5/22/2013 Same as last inspection.10/30/2013 Same as last inspection.5/13/2014 Same as last inspection.11/12/2014 Same as last inspection.
FIELD_STRUCT_DESC: 2 of 5. 4-foot by 6-foot concrete box culvert through the levee, 31.5 feet below the crown. Wood flap gate and concrete headwall on the waterward end. Wooden steps on the landward slope. Concrete steps on the waterward end. Originally included in the O+M Manual.
FS Date: 05/11/2015

Photo 1 of 3: UCIP_FA_2015_5185.jpg



Pumping plant on LS toe.

Levee Inspection Report By Mile - Fall 2015

Sutter Maintenance Yard East Levee Sutter Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sutter Bypass Levee	Left	21.68	10/14/2015 10/14/2015	Bob Duffey

LM Start	10.83	Rating **	М	Issue No.		40 (cont)
LM End	10.83	Issue Type + En		Location *		WS
Category	Supplemental			GPS Latitude/Longitude		
Calegory			Start		End	
Item	DWR UCI	IP Field Study		39.02568	33 °	39.025683
пеш				-121.72688	36°	-121.726886 °
DWR ID						

Action/Comments

Inspector Comments: FS_ID:45085

DS_ID:16906 EP_NO: N/A FS_HLM: 10.999 Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 5/7/2015 Abandoned crossing but no noticeable issues to report. Determine type of abandonment. 5/22/2013 Same as last inspection. 10/30/2013 Same as last inspection. 5/13/2014 Same as last inspection. 11/12/2014 Same as last inspection. FIELD_STRUCT_DESC: 2 of 5. 4-foot by 6-foot concrete box culvert through the levee, 31.5 feet below the crown. Wood flap gate and concrete headwall on the waterward end. Wooden steps on the landward slope. Concrete steps on the waterward end. Originally included in the O+M Manual.

FS Date: 05/11/2015

LM Start	10.83	Rating **	М	Issue No.	40 (cont)
LM End	10.83	Issue Type +	En	Location *	WS



Flap gates on WS toe.

Photo 3 of 3: UCIP_FA_2015_5217.jpg



Slide gates on WS shoulder.

Levee Inspection Report By Mile - Fall 2015

Sutter Maintenance Yard East Levee Sutter Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sutter Bypass Levee	Left	21.68	10/14/2015 10/14/2015	Bob Duffey

LM Start	10.84	Rating **	М	Issue No.		41		
LM End	10.84	Issue Type +	En	Location *		WS		
Category				GPS La	atitud	le/Longitude		
Calegory				Start		End		
Item	DWR UC	IP Field Study		39.0255	60°	39.025560 °		
пеш				-121.7268	46 °	-121.726846 °		
DWR ID								
	A - 1' 1'O 1 -							

Action/Comments

Inspector Comments: FS_ID:45089

DS_ID:16872 EP_NO: 3165 FS_HLM: 11.009 Repair Type: Non-Urgent Crossing Status: Found



Siphon breaker in 36-inch CMP riser on WS shoulder. Pipe visible at siphon breaker.

LM Start	10.85	Rating **	М	Issue No.		42
LM End	10.85	Issue Type +	En	Location *		WS
Category	Suppleme	ental		GPS La	atitud	le/Longitude
Calegory				Start		End
Item	DWR UC	DWR UCIP Field Study			10°	39.025310 °
item				-121.7267	70°	-121.726770 °
DWR ID						

Action/Comments

Inspector Comments: FS_ID:45090

DS_ID:19986 EP_NO: N/A FS_HLM: 11.027 Repair Type: Non-Urgent Crossing Status: Indicator Found

UCIP Comments: 5/7/2015 Crossing is in good condition. No

noticeable issues to report. No permit identified for

crossing.5/22/2013 Same as last inspection.10/30/2013 Same as last inspection.5/13/2014 Same as last inspection.11/12/2014 Same as last inspection.

FIELD_STRUCT_DESC: Gas-line crosses levee at unknown depth. Carsonite sign on both LS and WS shoulder. Owned by Calpine Pipeline Company

FS Date: 05/11/2015



Gasline marker on WS shoulder.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiancy Ob : Design & System Obsolescence En : Enforcement

Levee Inspection Report By Mile - Fall 2015

Sutter Maintenance Yard East Levee Sutter Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sutter Bypass Levee	Left	21.68	10/14/2015 10/14/2015	Bob Duffey

LM Start	10.85	Rating **	М	Issue No.		42 (cont)
LM End	10.85	Issue Type +	En	Location *		WS
Category	Suppleme	ental		GPS La	titud	e/Longitude
Calegory			Start		End	
Item	DWR UCIP Field Study			39.0253	10°	39.025310°
пеш				-121.7267	70°	-121.726770 °
DWR ID						·

Action/Comments

Inspector Comments: FS_ID:45090

DS_ID:19986 EP_NO: N/A FS_HLM: 11.027 Repair Type: Non-Urgent Crossing Status: Indicator Found

UCIP Comments: 5/7/2015 Crossing is in good condition. No

noticeable issues to report. No permit identified for

crossing.5/22/2013 Same as last inspection.10/30/2013 Same as last inspection.5/13/2014 Same as last inspection.11/12/2014

Same as last inspection.

FIELD_STRUCT_DESC: Gas-line crosses levee at unknown depth. Carsonite sign on both LS and WS shoulder. Owned by Calpine

Pipeline Company FS Date: 05/11/2015



Gasline marker on LS shoulder.

LM Start	10.88	Rating **	М	Issue No.		1	
LM End	10.91	Issue Type +	Ma	Location *	WS		
Category	Suppleme	ental		GPS Lati	tud	e/Longitude	
Category				Start		End	
Item	2015 USA	Survey,	39.024835	0	39.024399	٥	
item	DRAFT			-121.726929	°	-121.726808	٥
DWR ID							

Action/Comments

Inspector Comments: 2011 - Small section of the mid levee slope has eroded from wind wave. 2015: Site is part of the extended inventory, last inspected 2011. [2015 Site ID: SBP_11-1_L]

No Photos

Levee Inspection Report By Mile - Fall 2015

Sutter Maintenance Yard East Levee Sutter Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sutter Bypass Levee	Left	21.68	10/14/2015 10/14/2015	Bob Duffey

LM Start	12.94	Rating **	М	Issue No.		43	
LM End	12.94	Issue Type +	En	Location *		WS	
Category	GPS La	atitud	le/Longitude				
Calegory			Start		End		
Item	DWR UC	38.9963	04 °	38.996304	0		
пеш				-121.7162	90 °	-121.716290	0
DWR ID							

Action/Comments

Inspector Comments: FS_ID:45091

DS_ID:16883 EP_NO: 15571 FS_HLM: 13.13

Repair Type: Non-Urgent Crossing Status: Not Found

UCIP Comments: 5/7/2015 Unable to locate. Need to determine status of pipeline. Unable to locate any markers in field.5/23/2013 Same as last inspection. Unable to locate.10/30/2013 Same as last inspection.5/14/2014 Same as last inspection.11/12/2014 Same as

last inspection. Unable to locate

FIELD_STRUCT_DESC: 10.75-IN. STEEL GAS PIPELINE 2 feet below the levee crown. Permit #15571. Design drawings are available.

FS Date: 05/11/2015

Dhoto 1 of 1 . EA	2015	CTOOOS	450 00	20151016	00000 :

No Photos



View of the vehicle erosion along the slope.

LM Start	13.34	Rating **	M	Issue No.		23	
LM End	13.34	Issue Type +	Ma	Location *		WS	
Category	evee	GPS Latitude/Longitude					
Category	alegory					End	
Item	Slope Stability			38.9918	57°	38.991857 °	
пеш				-121.7115	55 °	-121.711555 °	
DWR ID	DWR_ST0	002_01_s _ 201	5_23			·	

Action/Comments

Repair the levee slope damaged by vehicle traffic and prevent access where possible.

Inspector Comments: Repair the erosion along the waterside slope.

N: Not Inspected/Rated

Issue Type Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence

En: Enforcement

Levee Inspection Report By Mile - Fall 2015

Sutter Maintenance Yard East Levee Sutter Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sutter Bypass Levee	Left	21.68	10/14/2015 10/14/2015	Bob Duffey

LM Start	13.35	Rating **	М	Issue No.		44		
LM End	13.35	Issue Type +	En	Location *		WS		
Category	Supplemental				GPS Latitude/Longitude			
Calegory						End		
Item	DWR UCI	IP Field Study		38.99180)8 °	38.991808 °		
пеш			-121.71151	12 °	-121.711512 °			
DWR ID						·		

Action/Comments

Inspector Comments: FS_ID:45103

DS_ID:16873 EP_NO: N/A FS_HLM: 13.539 Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 5/7/2015 Crossing is in good condition. No noticeable issues to report. Verify work (if any) was done to replace original equipment with inspector.5/23/2013 Same as last

inspection.10/30/2013 Same as last inspection.5/14/2014 Same as

last inspection.11/12/2014 Same as last inspection.

FIELD_STRUCT_DESC: 18-inch pipe through the levee, 5.5 feet below the crown. Pipe measures 16-inches at pump and on LS outlet. Siphon breaker in a 16-inch corrugated metal pipe riser on the landward slope. Pump on pile structure in the channel. Meter and pole on the bank. Originally included in O+M manual.

FS Date: 05/11/2015

LM Start	13.35	Rating **	М	Issue No.	44 (cont)
LM End	13.35	Issue Type +	En	Location *	WS



Pump on Pier structure on WS toe.

Photo 2 of 3: UCIP_FA_2015_4741.jpg

Siphon Breaker in 16-inch steel riser on LS shoulder.

Levee Inspection Report By Mile - Fall 2015

Sutter Maintenance Yard East Levee Sutter Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sutter Bypass Levee	Left	21.68	10/14/2015 10/14/2015	Bob Duffey

LM Start	13.35	Rating **	М	Issue No.		44 (cont)		
LM End	13.35	Issue Type +	En	Location *	Location * W			
Category				GPS Latitude/Longitud				
Calegory		Start		End				
Item	DWR UC	IP Field Study		38.9918	08 °	38.991808 °		
пеш			-121.7115	12 °	-121.711512 °			
DWR ID								
	A - 1 1 O 1 -							

Action/Comments

Inspector Comments: FS_ID:45103

DS_ID:16873 EP_NO: N/A FS_HLM: 13.539 Repair Type: Non-Urgent Crossing Status: Found



Pump on Pier on WS toe.

LM Start	13.57	Rating **	Α	Issue No.		22	
LM End	13.57	Issue Type +	Ма	Location *		LS	
Category	Earthen Levee				GPS Latitude/Longitude		
Calegory	ory			Start		End	
Item	Vegetatio	n		38.98970)3 °	38.989703	0
item					92 °	-121.708392	0
DWR ID DWR_ST0002_01_f _ 2015_22							

Action/Comments

Control annual grass and weeds on the levee slopes and easements. Inspector Comments: Sutter Yard burned and dragged the levee slopes.



View of both slopes with no vegetation.

Levee Inspection Report By Mile - Fall 2015

Sutter Maintenance Yard East Levee Sutter Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sutter Bypass Levee	Left	21.68	10/14/2015 10/14/2015	Bob Duffey

LM Start	14.71	Rating **	М	Issue No.		45		
LM End	14.71	Issue Type +	Type + En Location *		ue Type + En Location *		LS	
Category	Supplemental				GPS Latitude/Longitude			
Calegory				Start		End		
Item	DWR UCI	IP Field Study		38.9793	77 °	38.979377 °		
пеш			-121.6919	29°	-121.691929 °			
DWR ID								

Action/Comments

Inspector Comments: FS_ID:45105

DS_ID:16875 EP_NO: N/A FS_HLM: 14.91

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 5/7/2015 Abandoned crossing. Needs to be properly abandoned. Pipe has not been abandoned properly. It should be removed from the levee section.5/23/2013 Same as last

inspection.10/30/2013 Same as last inspection.5/14/2014 Same as last inspection.11/12/2014 Same as last inspection.

FIELD_STRUCT_DESC: 16-inch steel pipe through the levee, 3.5 feet below the crown. Siphon breakers in 30-inch steel risers on both WS and LS shoulders. Vertical pump on pile structure in stream (removed).

FS Date: 05/11/2015

LM Start	14.71	Rating **	М	Issue No.	45 (cont)
LM End	14.71	Issue Type +	En	Location *	LS



Crushed pipe on WS slope. Photo 2 of 3: UCIP_FA_2015_4744.jpg

Steel riser on LS shoulder.

* Location Issue Type Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence LS : Land Side N/A: Not Applicable A : Acceptable M : Minimally Acceptable N: Not Inspected/Rated WS: Water Side CR : Crown U : Unacceptable A/W: Acceptable but Monitor & Maintain En: Enforcement

Levee Inspection Report By Mile - Fall 2015

Sutter Maintenance Yard East Levee Sutter Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sutter Bypass Levee	Left	21.68	10/14/2015 10/14/2015	Bob Duffey

LM Start	14.71	Rating **	М	Issue No. 45		45 (cont)		
LM End	14.71	Issue Type +	En	Location *		LS		
Category Supplemental				GPS Latitude/Longitude				
Calegory	Category				Start			
Item	DWR UC	P Field Study		38.9793	77 °	38.979377		
item				-121.6919	29 °	-121.691929		
DWR ID								
	Action/Comments							

Inspector Comments: FS_ID:45105

DS_ID:16875 EP_NO: N/A FS_HLM: 14.91

Repair Type: Non-Urgent Crossing Status: Found



Pipe on WS slope exposed and crushed below 30-inch steel riser.

LM Start	16.23	23 Rating ** C		Issue No.		24	
LM End	16.23	Issue Type +	Ma	Location *		LS	
Category	Cotagon Earthen Levee				GPS Latitude/Longitude		
Calegory			Start		End		
Item	Animal Co	ontrol		38.9651	88 °	38.965188 °	
iteiii			-121.6703	65 °	-121.670365 °		
DWR ID	WR ID DWR_ST0002_01_f _ 2014_24						

Action/Comments

No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.

Inspector Comments: Sutter Yard repaired the rodent holes along the landside slope.

No Photos

LM Start	17.60	Rating **	М	Issue No.		21
LM End	17.60	Issue Type +	Ма	Location *		WS
Category	Earthen L	GPS Latitude/Longitude				
Calegory			Start		End	
Item	Slope Sta	Slope Stability			65 °	38.949965 °
item				-121.65382	23 °	-121.653823 °
DWR ID	DWR_ST0002_01_s _ 2015_21					

Action/Comments

Repair the levee slope damaged by vehicle traffic and prevent access where possible.

Inspector Comments: Repair the vehicle erosion along the waterside slope.

Photo 1 of 2: FA_2015_ST0002_450_21_20150910_00002.jpg



View of the vehicle erosion along the waterside slope.

Location Issue Type Ma : Maintenance Deficiancy
Ob : Design & System Obsolescence LS : Land Side N/A: Not Applicable A : Acceptable M : Minimally Acceptable N: Not Inspected/Rated WS: Water Side CR : Crown U : Unacceptable A/W: Acceptable but Monitor & Maintain En: Enforcement

Levee Inspection Report By Mile - Fall 2015

Sutter Maintenance Yard East Levee Sutter Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sutter Bypass Levee	Left	21.68	10/14/2015 10/14/2015	Bob Duffey

LM Start	17.60 Rating ** M		Issue No.		21 (cont)		
LM End	17.60	Issue Type +	Ma	Location *		WS	
Category	Earthen Levee			GPS Latitude/Longitude			
Calegory				Start		End	
Slope Stability			38.94996	65 °	38.949965 °		
item				-121.653823 °		-121.653823 °	
DWR ID	DWR_ST0002_01_s _ 2015_21						
Action/Comments							

Action/Comments

Repair the levee slope damaged by vehicle traffic and prevent access where possible.

Inspector Comments: Repair the vehicle erosion along the waterside slope.

Photo 2 of 2 : FA_2015_ST0002_450_21_20151016_00011.jpg



View of the vehicle erosion along the waterside slope.

LM Start	19.18	Rating **	М	Issue No.		46		
LM End	19.18	Issue Type +	En	Location *		WS		
Supplemental				GPS Latitude/Longitude				
Category			Start		End			
Item	DWR UCI	P Field Study		38.9324	23 °	38.932423 °		
item				-121.6350	85 °	-121.635085 °		
DWR ID						·		

Action/Comments

Inspector Comments: FS_ID:45117

DS_ID:16878 EP_NO: 3165 FS_HLM: 19.461 Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 5/7/2015 Abandoned crossing. No noticeable issues to report.Need to determine type of abandonment.5/23/2013 Same as last inspection.10/30/2013 Same as last inspection.5/14/2014 Same as last inspection. 11/12/2014 Same as last inspection. FIELD_STRUCT_DESC: 10-inch drainage pipe through the levee, 4.0 feet below the crown. Siphon breaker in 36-inch corrugated metal pipe riser on the waterward shoulder. Flap gate on the waterward end. (App. 3165 - DWR)

FS Date: 05/11/2015





36-inch CMP riser on WS shoulder.

Levee Inspection Report By Mile - Fall 2015

Sutter Maintenance Yard East Levee Sutter Bypass

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Sutter Bypass Levee	Left	21.68	10/14/2015 10/14/2015	Bob Duffey

20.02	Rating **	М	Issue No.	29			
20.02	Issue Type +	Ма	Location *	WS			
Earthen Levee			GPS Latitude/Longitude				
			Start		End		
Slope Stability			38.92267	′8 °	38.922678		
			-121.625890 °		° -121.625890		
DWR_ST0002_01_f _ 2015_29							
Action/Comments							
	20.02 Earthen L Slope Sta	20.02 Issue Type + Earthen Levee Slope Stability DWR_ST0002_01_f _ 2016	20.02 Issue Type + Ma Earthen Levee Slope Stability DWR_ST0002_01_f_ 2015_29	20.02 Issue Type + Ma Location * Earthen Levee GPS La Start Slope Stability 38.92267 -121.62589 DWR_ST0002_01_f _ 2015_29	20.02 Issue Type + Ma Location * Earthen Levee GPS Latitud Start Slope Stability 38.922678 ° -121.625890 ° DWR_ST0002_01_f_2015_29		

Repair the levee slope damaged by vehicle traffic and prevent access where possible.

Inspector Comments: Repair the erosion along the waterside slope.



View of the vehicle erosion along the waterside slope.

	1						
LM Start	20.34	Rating **	U	Issue No.		10	
LM End	20.34	Issue Type +	En	Location *		LS	
Category Earthen Levee				GPS Latitude/Longitude			
Category				Start		End	
Item	Encroachments			38.918147 °		38.918147	
item			-121.624545 °		-121.624545 '		
DWR ID	DWR ID DWR_ST0002_01_s _ 2012_10						
		Action/	Comme	nts			
Building							





View of the house next to the toe of the levee.